

## **REMARKS**

Prior to this Amendment, Claims 1-28 and 33-60 were pending in the application and Claims 29-32 and 61-96 were withdrawn from consideration. By this Amendment, Applicant has amended Claims 1-16, 22-28, 33-35, 40-47, and 54-60; canceled withdrawn Claims 29-32 and 61-96; and added new Claims 97-116. No new matter has been added by the Amendment. Reexamination and reconsideration in view of the amendments and remarks contained herein is respectfully requested.

### **I. Claim Rejections - 35 U.S.C. § 102(b)**

Claims 1-8, 13-23, 25, 27, 28, 33-40, 45-55, 57, 59, and 60 stand rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Published Application 2002/0099649 filed by Lee et al. (hereinafter referred to as "Lee"). As described below in more detail, Lee does not teach or suggest the subject matter of these claims.

#### **A. Independent Claim 1**

Amended independent Claim 1 recites:

A method performed by an information handling system ("IHS") for determining whether a financial transaction request is likely to be fraudulent, the method comprising:

receiving a first financial transaction request;

applying a plurality of rules to the first financial transaction request to determine a first score, each of the plurality of rules having a weight;

determining a first indication of whether the first financial transaction request is likely to be fraudulent based on the first score;

accessing an actual outcome of the first financial transaction request to determine a result indicating whether the first indication was correct based on the actual outcome; and

automatically modifying the weight of at least one of the plurality of rules based on the result.

Lee does not teach or suggest the subject matter of Claim 1. Lee discloses a system for processing online transactions (abstract). As shown in Figure 1, the system includes an online merchant site and a scoring system (Fig. 1). The online merchant site receives an incoming

internet order, forwards the order to the scoring system, receives a score from the scoring system, and determines whether to accept or reject the order by processing the score through a rules engine (Figs. 1-2; pgs. 4-5, pars. 64-74). As described in Lee, a merchant sets and maintains the rules applied by the rules engine using a policy management workstation (pg. 5, par. 75).

The scoring system disclosed in Lee estimates the likelihood that the order is fraudulent by comparing the order with orders or transactions likely made by the same customer (pg. 4, par. 65). Therefore, the scoring system estimates whether a transaction is fraudulent by determining whether the transaction deviates from ordering history of the customer (pg. 7, par. 115). As described in Lee, to track the ordering history of a particular customer, the scoring system maintains profiles that include order information from multiple orders potentially submitted by the same customer (pg. 4, par. 65). For example, the scoring system maintains a profile for all orders placed under the same customer name, a profile for all orders placed under the same shipping address, a profile for all orders placed under the same billing address, an individual profile for all orders placed under the same e-mail address, etc. (pg. 5, pars. 82-89). The profiles also include variables, such as averages, rates, totals, frequencies of transactions, etc., which are generated based on the order information stored within each profile (pg. 5, par. 101).

After obtaining a new order from the merchant site, the scoring system retrieves all profiles matching the new order (pg. 7, par. 117). For example, the scoring system retrieves the profile for all orders placed under the same name as the current order and the profile for all orders placed under the same shipping address as the current order (pg. 7, pars. 118-124). Next, the scoring server computes contrast measures between the matching profiles (pg. 7, par. 117). A contrast measure is the ratio of the values of a variable for a pair of matching profiles (pg. 6, par. 102). For example, a contrast measure can include the ratio of the frequency of orders placed under the matching customer name profile to the frequency of orders placed under the matching e-mail address profile (pg. 6, pars. 104-06). Each contrast measure assesses how similar one profile is to another profile and, consequently, how reliable a profile is in describing the ordering history of a particular customer (pg. 6, par. 102). For example, the closer a contrast measure is to 1.0 (i.e., the more similar the variable values are between two matching profiles), the more likely the profiles represent the same customer (pg. 6, par. 108).

After determining the contrast measures, the scoring system inputs the current order, the matching profiles, and the calculated contrast measures into a scoring model (pg. 6, par. 109). As described in Lee, the scoring model is initially created based on historical data (pg. 3, par. 44). The historical data includes the same type of information included in an order later submitted to the scoring system for processing and also includes a tag identifying whether a transaction subsequently proved to be fraudulent or non-fraudulent (pg. 3, par. 44). The profiles disclosed in Lee are also initially created based on the historical data but do not include the subsequent, actual result of a transaction (pg. 3, par. 44; emphasis added).

As mentioned above, once the scoring model is initially created, it is used to process orders from one or more online merchant sites and determine a score for each order based on the order, the matching profiles, and the calculated contrast measures (pg. 3, par. 46). After processing an order, the scoring system returns a score to the online merchant site (pg. 3, par. 46). The scoring system also updates each matching profile with information from the current order just processed (pg. 6, par. 100).

Upon receiving the score from the scoring system, the online merchant site applies one or more rules to the score to determine whether to accept the order (pg. 3, par. 46). As mentioned above, the merchant sets and modifies the rules applied to the score using a workstation (Fig. 1; pg. 5, par. 75).

First, as described above, Lee does not teach or suggest “accessing an actual outcome of the first financial transaction request to determine a result indicating whether the first indication was correct based on the actual outcome,” as recited in amended Claim 1. The Examiner asserts that building a scoring model from historical data, as disclosed in Lee, which includes data about past transactions including a tag identifying whether a transaction was subsequently proved fraudulent or non-fraudulent generally teaches this feature. However, Lee merely teaches initially building a scoring model based on historical data regarding past transactions. Clearly, the historical data processed by the scoring system disclosed in Lee only includes the actual results of transactions processed by other systems because the scoring model has not been created yet, so it could not have processed the past transactions. Therefore, the scoring system disclosed in Lee only accesses the actual results of transactions processed by other systems before it processes any transactions of its own. Accessing the actual results of past transactions

processed by another system is clearly different than processing a transaction and then accessing the actual result of that transaction in order to determine whether the system's previous processing of the transaction was correct, as recited in amended Claim 1.

Lee also does not teach or suggest "automatically modifying the weight of at least one of the plurality of rules based on the result," as recited in amended Claim 1. First as noted above, Lee does not teach or suggest accessing an actual result of a transaction previous processed by the scoring system. Therefore, Lee clearly cannot teach or suggest modifying the scoring system based on the actual result of a transaction previous processed by the system if Lee does not teach or suggest accessing such information.

The Examiner, however, asserts that the contrast measures disclosed in Lee are the "weights" as recited in Claim 1. However, even assuming for the sake of argument that the contrast measures are "weights," the contrast measures are not modified based on the actual result of a transaction. First, the contrast measures are not modified directly but change when matching profiles are updated with information from a current order. Nonetheless, a profile is not updated or modified based on the actual result of a current order because, as described above, that information is not known or accessible by the scoring system disclosed in Lee. In fact, at the time a profile is updated with information from a current order, an actual result of the order, that is, whether the order was fraudulent, is yet to be known.

Furthermore, even when the profiles disclosed in Lee are initially created from the historical data, the profiles do not include the actual results of any past transactions. Lee explicitly states that the profiles, when initially created, do not include the tag information that identifies whether a transaction was subsequently proved fraudulent or non-fraudulent (pg. 3, par. 44). Therefore, the profiles and, consequently, the contrast measures, disclosed in Lee are not modified based on the actual results of any transactions.

Furthermore, Lee taken in its entirety does not teach or suggest modifying any type of rule in any way based on the actual result of a transaction previously processed by the scoring system. In particular, the merchant-defined rules described in Lee are not modified based on the actual results of a transaction. In fact, Lee makes no mention whatsoever of the merchant system storing or accessing an actual result of an order processed by the scoring system. Furthermore,

as disclosed in Lee, the merchant-defined rules are manually set and modified by a merchant using a workstation (pg. 5, par. 75). Therefore, the merchant-defined rules disclosed in Lee are not “automatically” modified based on any data.

Accordingly, Lee does not teach or suggest “accessing an actual outcome of the first financial transaction request to determine a result indicating whether the first indication was correct based on the actual outcome,” as recited in amended Claim 1. In addition, Lee does not teach or suggest “automatically modifying the weight of at least one of the plurality of rules based on the result,” as also recited in amended Claim 1. Therefore, for at least the reasons set out above, independent Claim 1 and dependent Claims 2-12, which depend on Claim 1, are allowable. Similar rationale can also be applied to amended independent Claims 13, 33, and 45 and new independent Claim 97 and dependent Claims 14-28, 34-44, 46-60, and 98-116 that depend from Claims 13, 33, 45, and 97, respectively. Consequently, for at least the reasons set out above, Claims 1-28, 33-60, and 97-116 are allowable.

## **II. Claim Rejections – 35 U.S.C. § 103(a)**

Claims 9-12, 24, 26, 41-44, 56, and 58 stand rejected under 35 U.S.C. § 103(a) as being obvious in view of Lee. As described above, Claims 9-12, 24 and 26, 41-44, and 56 and 58 depend from independent Claims 1, 13, 33, and 45, respectively, and are therefore allowable for at least the reasons set forth above with respect to Claim 1.

### **III. Conclusion**

In light of the above, Applicant believes that the application is in condition for allowance and respectfully request that a timely Notice of Allowance be issued in this case. Applicant also requests that the Examiner telephone the attorneys of record in the event a telephone discussion would be helpful in advancing the prosecution of the present application.

Respectfully submitted,

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